



**Broadband Infrastructure Application
Submission to RUS (BIP) and NTIA (BTOP)**

Submitted Date: 8/20/2009 5:21:59 AM		Easygrants ID: 1225	
Funding Opportunity: Broadband Initiatives Program and Broadband Technology Opportunities Program		Applicant Organization: Grays Harbor Public Development Authority	
Task: Submit Application - Infrastructure Programs		Applicant Name: Tami Garrow	

C. Executive Summary

Executive Summary of Project for BIP and BTOP:

8. Infrastructure Projects Executive Summary

a) OPPORTUNITY - The Grays Harbor Public Development Authority (GHPDA) will use USDA funds to maximize the investment created by past Governor Gary Locke in his 2000 legislation allowing PUDs authority to do wholesale resell of overcapacity of fiber networks. Current Governor Christine Gregoire has enabled and built upon that legislation with a recent study and mapping project completed for the Washington Utilities and Transportation Commission (UTC). The report issued June 27, 2008 was prepared to "evaluate broadband availability, adoption, and use in five Washington Counties" (Grays Harbor included).

The GHPDA project will:

- *rapidly complete a fiber network to bring broadband to a rural area lacking access;
- *complete a countywide broadband middle mile transport to provide service to un-served



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areas;

- *provide improved access to underserved areas;
- *provide broadband access to community anchor institutions;
- *improve access to and use of broadband by public safety agencies;
- *stimulate demand for broadband, economic growth and job creation.

GHPDA will extend current network to include healthcare providers, public safety providers and amateur radio, and allow for last mile access through an increased option of service providers while immediately touching key critical community facilities. The traditional pricing for telephone company transport will be reduced to metropolitan prices, eliminating traditional per mile charges. This allows last mile service providers to increase access to home users and provide immediate solutions for businesses and local governments. The project will create a long-term, sustainable costing and operational model in rural Grays Harbor which will increase employment and economic development opportunities and support long-term growth and viability through broadband adoption, added services, and reliability.

This project meets the built up demand (identified during information gathering in support of project) for transport (back to data centers), transit and disaster recovery services currently unattainable in a cost effective model due to high transport and transit costs with traditional T1, DS3 and OC3 services. It will create a redundant high-speed GigE back bone throughout Grays Harbor County with multiple connection points to support reliable internet based products and services.

With a large percentage of our public safety, anchor institutions and critical community agencies located within tsunami zones this is a critical project for disaster preparedness as well as job retention/creation and transport and transit to public and private groups across the county.

b)DESCRIPTION OF THE PROPOSED FUNDED SERVICE AREAS - The proposed funded service areas for this project include Grays Harbor County; the cities of Aberdeen, Cosmopolis, Hoquiam, Montesano, Oakville, and Westport; Satsop (Census Designated Place); and the communities of Lake Quinault (Grays Harbor County) and Amanda Park (Quinault Indian Reservation).

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Grays Harbor County is a rural county with a population of 70,800 (37.3 persons/sq. mile) ranking 15th in geographic size among the 39 Washington State counties. The median age is 38.8, and median household income is \$34,160 with 11.9% of all households living below poverty level. Median household income in Grays Harbor County is 77% of the state average. Current unemployment rate is 13.4%.

Natural resource based jobs (forest products, fishing- clams/oysters, agriculture, and food products), once the backbone of the community, are disappearing at an alarming rate. Timber harvests and related forest-products jobs have decreased dramatically over the last 20 years. Fishing and related industries have experienced severe set backs as a result of curtailments, declines in fish populations and regulatory issues. Grays Harbor is struggling to develop new growth in high tech industry with joint efforts between agencies like the Grays Harbor Public Utility District and the Grays Harbor Public Development Authority.

c) **NUMBER OF HOUSEHOLDS AND BUSINESSES PASSED** – GHPDA Middle Mile Project direct spans and service areas include approximately 18,535 households with a total population of 41,360 persons and 1,880 businesses. At build out the project supports the last mile service area of the entire county which includes approximately 34,312 households, a population of 70,800 and 4,849 businesses.

d) **NUMBER OF COMMUNITY ANCHOR INSTITUTIONS, PUBLIC SAFETY ENTITIE, CRITICAL COMMUNITY ORGANIZATIONS** – GHPDA Middle Mile Project direct spans and service areas include approximately 234 of these agencies. At build out the project supports the last mile service area of the entire county which includes approximately 351 of these agencies.

e) **PROPOSED SERVICES AND APPLICATIONS** - GHPDA will offer transit, transport and inter-office transport, internet connectivity. Users include a built up demand from hospitals, healthcare providers, public safety providers, amateur radio, local governments, schools and last mile service providers who want to provide increased services in un-served/underserved areas.

The built up demand that has been identified with providers ready to service last mile customers (i.e. Grays Harbor Community Hospital, Educational Service District 113, Port of



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Grays Harbor, E911), creates a sustainable long-term operation.

f) **APPROACH TO ADDRESSING NON-DISCRIMINATION AND INTERCONNECTION OBLIGATIONS** - The applicant (GHPDA) currently owns, operates, and maintains middle mile broadband infrastructure and colocation facilities that are accessible to public, private, and non-profit entities. The GHPDA is an equal opportunity provider and complies with the FCC Policy Statement 05-151 in offering open access and interconnections for services, network providers, and content providers across the GHPDA operated network.

g) **TYPE OF SYSTEM DEPLOYED** - GHPDA will offer an IP based, MPLS core network migrating from native Ethernet transport to IP. Physical layer uses wavelength multiplexing (industry standard CWDM using IEEE assigned frequencies) to allow for legacy equipment and to allow for partnering with groups not wishing to introduce additional organizations into the network layer.

The design drives down fiber costs and supports multiple requirements for public safety as well as utility districts while keeping in mind 100Mb service provider handoffs to support the last mile deployments. The system meets today's needs and scales into the future while driving down ongoing fixed monthly fee costs to support our sustainable business model.

h) **QUALIFICATIONS OF THE APPLICANT** - GHPDA currently owns and operates a broadband network including middle mile infrastructure and services. GHPDA offers dark fiber, transport, and VLAN services to public and private entities in Grays Harbor County as well as providing colocation services and internet access to GHPDA tenants. GHPDA maintains sales staff, maintenance personnel and billing systems to support the proposed Middle Mile Project extension to existing service areas.

i) **OVERALL INFRASTRUCTURE COST**- \$3,191,933 including engineering, consulting, physical plant, fiber, and equipment.

j) **OVERALL EXPECTED SUBSCRIBER PROJECTIONS** - The GHPDA has subscribers (service providers) who have developed a sustainable project through built up demand including ready to execute contracts (upon grant funding) for this middle mile project. The



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expected subscriber projections include 10 - 15 major employers in Grays Harbor County supporting thousands of jobs. Over the next 2 years service providers anticipate adding about 500 new broad band customers through last miles projects that would not be served without this middle mile project.

k) **NUMBER OF JOBS CREATED/SAVED** – The number of jobs estimated to be created or saved includes construction, technical, marketing, and network management positions. Direct job creation/retention includes:

[REDACTED]
Underutilized Business Zone (HUB zone); 2 new hires.

[REDACTED] 5 local Full Time
(retained) plus 2 new hires.

[REDACTED] 2 new hires

[REDACTED] 1 retained, 1 new hire.

* [REDACTED] 2 new hires.

Description of BTOP Project Purpose (BTOP Applicants Only Next Three Questions)

9. BTOP Statutory Purpose:



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Provide access to broadband service to consumers residing in "unserved" areas of the United States.
Provide improved access to broadband service to consumers residing in "underserved" areas of the United States.
Provide broadband education, awareness, training, access, equipment, and support to schools, libraries, medical and healthcare providers, community colleges and other institutions of higher education, and other community support organizations by or through these organizations.
Provide broadband education, awareness, training, access, equipment, and support to organizations and agencies that provide outreach, access, equipment and support services to facilitate greater use of broadband service by low-income, unemployed, aged, and otherwise vulnerable populations.
Improve access to, and use of, broadband service by public safety agencies.
Stimulate the demand for broadband, economic growth, and job creation.

10. Description of BTOP Project Purpose:

The Grays Harbor Public Development Authority (PDA), in participation with the Grays Harbor Public Utility District (PUD) proposes to:

- *provide broadband service to un-served areas;
- *provide improved access to underserved areas;
- *provide broadband access to community anchor institutions;
- *improve access to and use of broadband by public safety agencies;
- *stimulate demand for broadband, economic growth and job creation;

by bringing broadband connectivity to the most rural areas of Grays Harbor County, WA. These areas include: the Quinault Indian Nation lands; the community of Oakville and the Chehalis Indian Nation's tribal center and the ocean community of Westport WA.

The project will extend our current network to include healthcare, public safety, and amateur radio allowing for last mile access through service providers while immediately touching key critical community facilities. Traditional pricing for telephone company transport will be reduced to metropolitan prices allowing last mile service providers to increase access to home users and provide immediate solutions for business and local governments. This project creates



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a long-term, sustainable costing and operational model that will eliminate traditional per mile charges. This will result in increased employment and economic development and support long-term growth and viability through broadband adoption, increased services, and reliability in Rural Grays Harbor County.

11. BTOP Enhanced Services for Health Care Delivery, Education, and Children:

Based on recent meetings with hospitals, health care providers and education groups, this project will fulfill built up demand for broadband transport and transit throughout the county which is currently cost prohibitive. Not only does the project meet today's built up demand but it is the foundation for future telemedicine applications. Case in point – Currently Grays Harbor Community Hospital uses outside medical experts across the existing, limited broadband, non-redundant system. This project will support those applications while laying a more robust and reliable system to meet the needs of the future. As telemedicine is the best way for rural communities to access outside expertise, this is a natural growth field for future investment/job creation.